

Power Fence

SD Conservation Job Sheet 382-3
January 2002

1. Wire will be smooth, 12.5 gauge, high-tensile strength (170,000 psi), type III galvanization or better.
2. Single wire permanent power fence will have the wire located 24 to 32 inches above the ground level.
3. Two-wire power fence will have the top wire (hot) at least 30 inches above the ground and the bottom wire (cold) 10 inches below the top wire.
4. Three-wire power fence will have the top wire (hot) 42 inches above the ground. The middle wire (cold) will be 10 inches below the top and the bottom wire (hot) will be 10 inches below the middle wire.
5. An in-line strainer device will be installed on each wire to maintain correct tension. Wire tension will be sufficient to maintain proper wire spacing between posts.
6. For one and two-wire power fence, line post spacing shall not exceed 75 feet. Stays are not recommended.
7. For three or more wire power fences post spacing shall not exceed 75 feet without stays, or 100 feet with stays. Stays will be made from non-conductive material.
8. Brace assemblies will be spaced at intervals no greater than 4000 feet.
9. Brace timbers will measure a minimum of 4" x 4" x 8' treated lumber, 4" diameter treated posts, or 2 3/8" x 8' galvanized steel pipe with a wall thickness of .125".
10. Diagonal braces may be substituted for H-style braces. See SD Conservation Job Sheet 382-4 Diagonal Brace.
11. Brace wire will be double strand, 12.5 gauge or single strand 9 gauge galvanized smooth wire.
12. Corner, gate, and in-line brace posts will be a minimum of 5" x 7' treated or decay resistant wood.
13. Line posts: wood post will have a minimum top diameter of 1.5 inches and be treated or decay resistant. Fiberglass T-posts will be a minimum of 1" x 1". Steel posts will weigh a minimum of one pound per foot and have an anchor plate attached. Fiberglass posts will have a minimum diameter of 7/8". Posts will be set a minimum of 16" in the ground except in sandy material where 24" may be required.

14. Porcelain, ceramic, or high quality UV stabilized polypropylene insulators will be used on wood and steel posts.
15. Fence and energizer will be grounded as per energizers manufacturer's recommendation.
16. Energizers will be high power, low impedance with a peak output of 5000 volts and a pulse duration of 1/3000 second or less.

